Zip Search Cloud Service: Programmer's Quick Start

Overview

For Both the U.S. and Canada, the ZIP™ Search Cloud service can perform three distinct searches: (1) find cities tied to a given ZIP or Postal code, (2) retrieve ZIP or Postal codes associated with a given city and state/province, and (3) find city names that match a specific pattern within a given state or province. ZIP Search also can match geographic data to a ZIP code and city information that match a specific pattern within a state to correct misspelled city names in your list.

You can use Zip Search to:

- Improve geographic targeting, profiling and segmentation.
- Enrich existing data for business intelligence.
- No software to update or maintain.

Search Types

1. Find Cities in ZIP Code (Default)
2. Find ZIP Codes in City
3. Find City Names in State

OptOfficialCityNameOnly

This Boolean value instructs the web service to return all cities associated with a ZIP/Postal Code during a Find Cities in ZIP Code Search or to return just the official city.

FIELDS INPUT AND OUTPUT FROM THE SERVICE

INPUTs	Description
Transmission Reference	A unique string value identifying the request
Customer ID	License String from Melissa Data
SearchType	Set the search method. "1" - Find Cities in ZIP Code (Default). "2" - Fin ZIP Codes in City. "3" - Find City Names in State.

Find Cities in ZIP Code

INPUTs	Description
OptOfficialCityNameOnly	Boolean value. True - Return one search record, the official city. False - Return all cities found in the ZIP code (Default).
Zip	5-digit ZIP code or 6-digit Postal Code
Country	2-character country code

Find ZIP Codes in City and Find Cities in State

INPUTs	Description
City	City
State	State Abbreviation

OUTPUTs	Description
Version	Current version of Street Search.
Transmission Reference	A unique string value identifying the request.
Results	Results (status of the search).
Total Records	Number of street records returned.
ZipRecord	Property containing ZIP details.
Record ID	Unique ID if processing multiple records.
Zip	ZIP Code.
ZipType	Single-character code for the ZIP type.
City	Property containing City details.
Name	City Name.
Abbreviation	Official city name abbreviation.
County	Property containing County details.
Name	County Name.
FIPS	Five-digit county FIPS code.
State	Two-letter state abbreviation.
AreaCode	Three-character area code.
TimeZone	Property containing Time Zone details.
Name	Time Zone Name.
Code	Time Zone Code.
Latitude	9-character Latitude accurate to 6 decimal places.
Longitude	9-character Longitude accurate to 6 decimal places.
LastLineIndicator	Last-Line Indicator.
LastLineNumber	Six-digit Last-Line Number.
PreferredLastLineNumber	Six-digit Preferred Last-Line Number.
FacilityCode	Facility Code.

License String

You should have been provided an encrypted and unique license string or Customer ID from Melissa Data. This is necessary for including with each request to the Zip Search Cloud Service. This value should be put into the CustomerID element in each Web service request.

If you do not have a license string, please contact your Melissa Data sales representative at 1-800-MELISSA (1-800-635-4772).

Sample REST Requests

1. **Find Cities in ZIP Code**
   https://zipsearch.melissadata.net/v2/REST/Service.svc/doZipSearch?id=12345678&opt=true&stype=1&zip=92688

2. **Find ZIP Codes in City**
   https://zipsearch.melissadata.net/v2/REST/Service.svc/doZipSearch?id=12345678&stype=2&city=Rancho%20Santa%20Margarita&state=CA

3. **Find Cities in State**
   https://zipsearch.melissadata.net/v2/REST/Service.svc/doZipSearch?id=12345678&stype=3&city=Rancho%20S%2A&state=CA

Sample XML Response

```
<?xml version="1.0" ?>
<Request>
<TransmissionReference xmlns="urn:mdWebServiceZipSearch">Testing: DQWS SOAP Sample Code implementation using single record input.</TransmissionReference>
<CustomerID xmlns="urn:mdWebServiceZipSearch">12345678</CustomerID>
<SearchType xmlns="urn:mdWebServiceZipSearch">1</SearchType>
<OptOfficialCityNameOnly xmlns="urn:mdWebServiceZipSearch">true</OptOfficialCityNameOnly>
<City xmlns="urn:mdWebServiceZipSearch"> </City>
<State xmlns="urn:mdWebServiceZipSearch">CA</State>
<Zip xmlns="urn:mdWebServiceZipSearch" /> 92602</Zip>
<Country xmlns="urn:mdWebServiceZipSearch">us</Country>
</Request>
```

Zip Search Cloud Service URLs   [Zip Search Cloud Service Endpoint URLs](#)

Choosing a Web Service Protocol
The Melissa Data Zip Search Cloud Service supports REST, JSON, XML, and SOAP. For the undecided, here are some Pros and Cons of one Web Service protocol over the other.

REST

Pros: REST is lightweight and relies upon HTTP to do its work. If you don't need a strict API definition, this is the way to go. REST is also format-agnostic so you can use XML or JSON as responses.

Cons: REST can only be used for sending of single records and doesn't support strict contracts or more involved security. The Response is an XML or JSON document.

XML

Pros: XML allows record set structures of more than one record at a time and has very good support with most languages and browsers. Supports namespaces.

Cons: Developers need to use tools to serialize/de-serialize the XML structure.

JSON

Pros: JSON relies on simple object serialization based on JavaScript's object initialization. It is very simple to use with JavaScript and easily parsed and understood by developers.

Cons: No support for formal definitions. No namespace support. Not much support in Web Service clients with some platforms.

SOAP

Pros: SOAP (using a WSDL) is a heavy-weight XML standard that is centered around document passing. The advantage with this is that your requests and responses can be very well structured.

Cons: SOAP documents are very verbose and hard to consume without a SOAP toolkit and generally carry more overhead.

Basic Order of Operations (Pseudo Code)
1. Choose SOAP, XML, or the REST service.
2. Create an instance of the request object.
3. Populate the request element CustomerID with your Product License.
4. Set the options for the Web service.
5. Call the method and pass in the request to the service using the SOAP endpoint for SOAP request and the WEB endpoint for XML or JSON requests.
6. Examine and parse the response from the reply object back from the service.
7. Interpret the results.

Interpreting Results

Melissa Data's ZIP Search Cloud Service uses Results Codes to determine if a ZIP is found.
The Melissa Data Cloud Services use the following Results conventions:

1. CLOUD SERVICE ERRORS: SExx
2. CLOUD TRANSMISSION ERRORS: GExx
3. ZIP SEARCH STATUS CODES: ZSxx
4. NO ZIP SEARCH ERROR CODES: DExx

For Example: A ZS01 Result Code means the zip search returned one or more results within the designated range.

The DE01-DE02 Results Codes will explain the no records found.
Please check the documentation for any additional information on Results.

Results Codes

The service returns a series of results codes to tell you of the status of the ZIP.

For a full list of the Results Codes returned by the Zip Search Cloud Service, see Zip Search Result Codes.

Sample Code

Fully working examples are available on the wiki pages:
Click here to go to the Zip Search Cloud Service Wiki Page.

Wiki Page

A product support Wiki is available for your convenience. In the Wiki, you will find documentation about the service in more detail.
Click here to go to the Zip Search Cloud Service Wiki Page.

Misc. Considerations

Firewall

If you are behind a firewall, you may need to allow specific IP addresses access in order to communicate with the service. For a full list of IP Addresses, see IP Address Information.